Amendments to the Specification:

Please replace the paragraphs from page 7, line 23 – page 10, line 16 with the following:

Referring to FIG. 3, an example of a rectified input power supply signal 300 is shown. A first predetermined threshold <u>316</u> ~~314~~ and a second predetermined threshold <u>314</u> ~~316~~, both of which can be predetermined voltage levels, are also illustrated. The input power supply signal 300 can have a series of peaks 310 and valleys 312 in which the peaks 310 represent a maximum voltage of the signal 300 and the valleys 312 represent a minimum voltage of the signal 300. As an example and referring to FIGS. 1 and 3, when the input power supply signal 300 reaches a first predetermined threshold <u>316</u> ~~314~~, the controller 120 can activate the charging switch 122. When activated, the charging switch 122 can permit the input power supply signal to charge the battery 110.

Referring to method 200 of FIG. 2 once again, at decision block 224, it can be determined whether the input power supply signal has reached the second predetermined threshold. If it has not, the method 200 can resume at decision block 224. If it has, the charging switch can be deactivated, as shown at step 226. As an example and referring back to FIGS. 1 and 3, when the input power supply signal 300 reaches the second predetermined threshold <u>314</u> ~~316~~, the controller 120 can deactivate the charging switch 122, which can stop the input power supply signal 300 from reaching the battery 110. Moving back to FIG. 2, the steps 220 and 226 and the

decision blocks 218 and 224 can be considered part of a selectively controlling the charging switch step 217.

In one arrangement, referring to FIGS. 1 and 3, the values of the first predetermined threshold 316 ~~314~~ and the second predetermined threshold 314 ~~316~~ can be based, at least in part, on the minimum acceptable voltage required to indicate to the controller 120 that a power supply 112 is attached. This indication can prevent the controller 120 from unintentionally disabling a charging sequence. That is, so long as the voltage level that the controller 120 senses through the inputs 130, 132 remains above the first predetermined threshold 316 ~~314~~ and the second predetermined threshold 314 ~~316~~, the controller 120 will sense that the power supply 112 remains present, and the controller 120 will not disable the charging sequence. The values of the first predetermined threshold 316 ~~314~~ and the second predetermined threshold 314 ~~316~~ can be programmed into the controller 120.

Selectively activating and deactivating the charging switch 122 in accordance with the above discussion can reduce the value of the capacitor C_1. More specifically, the minimum value of the capacitor C_1 can be reduced to the value required for the capacitor C_1 to maintain the voltage necessary to indicate to the controller 120 that the portable electronic device is being charged. This reduction in value is made possible primarily because the capacitor C_1 no longer has to maintain a voltage level to continue the charging of the battery 110 when the input power supply signal 300 decreases. The minimum value required of the capacitor C_1 can be reduced as compared to the minimum value required of a capacitor that would supply charging

current when the input power supply signal 300 drops below the second predetermined threshold 314 ~~316~~.

In one arrangement, the second predetermined threshold 314 ~~316~~ may have a different value than the magnitude of the first predetermined threshold 316 ~~314~~. For example, the second predetermined threshold 314 ~~316~~ may have a higher value than the first predetermined threshold 316 ~~314~~. Deactivating the charging switch 122 at a value higher than when it was activated can permit the capacitor C_1 to supply current to, for example, the logic circuit 134 that is part of the portable electronic device 128 when the input power supply signal 300 drops during its voltage valleys 312. Because of the increased value of the second predetermined threshold 314 ~~316~~, the capacitor C_1 is also able to maintain the voltage necessary to indicate to the controller 120 that the portable electronic device 128 is still being charged.

Of course, the invention is not limited in this regard, as the first predetermined threshold 316 ~~314~~ and the second predetermined threshold 314 ~~316~~ can be determined through any other suitable process. Moreover, the magnitude of the second predetermined threshold 314 ~~316~~ can be equal to or even less than the magnitude of the first predetermined threshold 316 ~~314~~. The capacitor C_1 can also provide current to any other suitable circuitry or component in the portable electronic device 128. Alternatively, the capacitor C_1 can be used merely to maintain the voltage level needed to indicate to the controller 120 that the device 128 is still being charged.